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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,171	08/27/2003	Rony Yakir	21154-000710	5962

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EXAMINER

ROBINSON, GRETA LEE

ART UNIT PAPER NUMBER

2168

DATE MAILED: 03/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,171

Applicant(s)

YAKIR ET AL.

Examiner

Greta L. Robinson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/23/04, 6/18/04</u> . | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 6). Other: IDS 2/22/05, 5/16/05 & 12/19/05.

DETAILED ACTION

1. Claims 1-39 are pending in the present application.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on February 2, 2004, June 18, 2004, February 22, 2005, May 16, 2005 and December 19, 2005 have been considered by the examiner, note attached copies of form PTO 1449.

Drawings

3. The drawings are objected to because of the partial views in Figure 1 and Figure 4B. Note Figure 1 element 102 Physical Storage Units is not coupled to element 104 Logical Storage Unit (see specification paragraph 0020, physical storage units 102 encompass logical storage units 104). Also, regarding Figure 4B "OS" is not coupled to "DS". See 37 CFR 1.84(h). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary

to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Servers **106** see for example paragraph [0021] and paragraph [0033]. Note Figure 1 depicts servers 106-1, 106-2 and 106-3. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

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Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

5. The disclosure is objected to because of the following informalities: the description "SMS 100" at paragraph [0033] line one, should read "SMS 110".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1-39 the limitation recalled is vague [see claim 1 line 8; claim 11 line 8; claim 18 line 9; claim 25 line 9; claim 30 line 11; claim 33 line 12; claim 36 line 11; and claim 38 line 12]. The procedure for recalling the file data is unclear. Claim 1 recites "the file data can be recalled using the second data locator information" lines 6-8, and at lines 11-12 recites "wherein the generating, enabling, and deleting are performed without recalling the file data from the first storage location". It is unclear as where the data file is being recalled from since the data file is stored in the first storage location.

Claims 1, 18, 30 and 33 recite the limitation "the second data locator" [see claim 1 lines 6-7; claim 18 line 8; claim 30 lines 10-11; and claim 33 lines 11-12]. There is insufficient antecedent basis for this limitation in the claim. The examiner suggests changing "the second data locator" to "the second data locator information" to overcome the rejection. Claims 2-10, 19-24, 31, 32, 34 and 35 are rejected based on dependency.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1-9, 11-23, and 25-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cabrera et al. US Patent 6,269,382 B1 inview of Wilde US Patent 5,991,753.

Regarding claim 1, Cabrera et al. teaches a storage environment wherein file data is stored in a first storage location, first data locator information that can be used to identify the location of the file data is stored in a second storage location distinct from the first storage location, a method of moving the first data locator information from the

second storage location to a third storage location distinct from the second storage location [note: *hierarchical storage management* abstract; Figure 4], comprising:

generating second data locator information in the third storage location, the second data locator generated based upon the first data locator information such that the file data can be recalled using the second data locator information [note: *stub file* col. 1 lines 1-15 and 37-66; *migration policy* col. 4 lines 39-55];

enabling recall of the data file using the second data locator information [note: “system manager specifies policies used to migrate and recall data” abstract; Figure 10 step (208) identify files that will meet migration criteria; col. 4 lines 39-54]; and

deleting the first data locator information from the second storage location [note: col. 1 lines 51-66; *free local storage* step (230) Figure 11; col. 29 lines 1-2],

wherein the generating, enabling, and deleting are performed without recalling the file data from the first storage location [note: “system manager specifies policies used to migrate and recall data” abstract; col. 13 line 35 through col. 14 line 11].

Although Cabrera et al. teaches the invention substantially as cited above they do not explicitly teach without recalling the file data from the first storage location. Cabrera et al. teaches *policies may be set* for recalling data [note: abstract; col. 32 lines 44-52 “parameters may first be collected from a system manager in order to specify the recall policy”; also note attribute recall 124 col. 19 lines 1-7; Figure 6 *attribute recall* 124]. It would have been obvious to one of ordinary skill at the time of the invention to have set a parameter or policy to not recall the data because Cabrera et al. teaches that if the data is not needed or required for a write command there is no need to recall the data. This

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enhances prior art conventional methods that required data to be recalled [note: col. 3 lines 46-65].

10. Regarding claim 2, disabling recall of the file data using the first data locator information prior to generating the second data locator information [note: ability to specify recall through system manager col. 32 lines 44-52; Figure 6 attribute recall 124; also note optional flag may be set col. 21 lines 11-24].

11. Regarding claim 3-5, "wherein the second storage location is on a storage unit allocated to a server and a third storage location is on a storage unit allocated to the first server" ... "providing first information indicating that the file data can be recalled using the first data locator information stored in the storage location wherein generating the second data locator information comprises updating the first information ..." [note: policy setting col. 32 lines 44-52].

12. Regarding claim 6, wherein the second storage location is on a storage unit allocated to a first server and the third storage location is on a storage unit allocated to a second server distinct from the first server [note: col. 26 lines 16-17; col. 28 lines 46-60; Figure 9].

13. Regarding claims 7-9, disabling recall of the file data using the first data locator information prior to generating the second data locator information; communicating a

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message from the first server to the second server ... [note: policy and migration criteria col. 4 lines 51-55].

14. The limitations of claims 18-23 parallel claims 1-9 therefore they are rejected under the same rationale.

15. The limitations of claims 11-17 have been addressed above in claims 1-9 except for the following: "migrated data" [note: Figure 10 (208); also note Figure 15 data mover (292)].

16. The limitations of claims 25-29 parallel claims 11-17; therefore they are rejected under the same rationale.

17. Regarding claims 30-32, 36 and 37 the limitations have been addressed above except for the following: "a first server" [note: various embodiments may be implemented col. 8 lines 16-37].

18. Regarding claims 33-35, 38 and 39 the limitations have been addressed above except for the following: "a second server" [note: col. 8 lines 16-37].

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19. Claims 10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cabrera et al. US Patent 6,269,382 B1 inview of Wilde US Patent 5,991,753 and Wei US patent 5,701,415.

Although Cabrera et al. and Widle teach the invention substantially as applied to claims 1 and 18, regarding claims 10 and 24 they do not specifically teach a second stub file. Wei teaches creating a stub file supporting remote procedural calls and discloses a second stub file [abstract; col. 2 line 59 through col. 3 line 8]. It would have been obvious to one of ordinary skill at the time of the invention to have combined Wei with Cabrera et al. and Wilde because a second stub file would enhance the efficiency of the system.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bishop et al. US Patent 4,901,231

Wei US Patent 5,701,415

Cabrera et al. US Patent 5,978,815

Wilde US Patent 5,991,753

Anglin et al. US Patent 6,023,709

Pudipeddi et al. US Patent 6,920,447 B2

Tsuchida et al. US Patent Application Publication No. 2002/0107878 A1

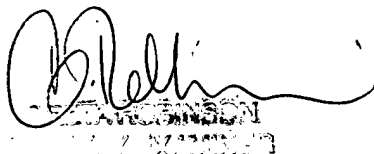
Cheng et al. US Patent Application Publication No. 2005/0015409 A1

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21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greta L. Robinson whose telephone number is (571)272-4118. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on (571)272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'G. Robinson', with a stylized flourish at the end. Below the signature is a faint, rectangular stamp.

Greta Robinson
Primary Examiner
March 3, 2006